

[illegible]

&lt;120&gt; ANTISENSE MODULATION OF APOLIPOPROTEIN B EXPRESSION

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Leu	Ser	Gly	Ser	Leu	Asn	Ser	His	Gly	Leu	Glu	Leu	Asn	Ala	Asp	Ile						
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Leu Gly Thr Asp Lys Ile Asn Ser Gly Ala His Lys Ala Thr Leu Arg	
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Ile Gly Gln Asp Gly Ile Ser Thr Ser Ala Thr Thr Asn Leu Lys Cys	
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agt ctc ctg gtg ctg gag aat gag ctg aat gca gag ctt ggc ctc tct	5162
Ser Leu Leu Val Leu Glu Asn Glu Leu Asn Ala Glu Leu Gly Leu Ser	
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Gly Ala Ser Met Lys Leu Thr Thr Asn Gly Arg Phe Arg Glu His Asn	
1680 1685 1690	
gca aaa ttc agt ctg gat ggg aaa gcc gcc ctc aca gag cta tca ctg	5258
Ala Lys Phe Ser Leu Asp Gly Lys Ala Ala Leu Thr Glu Leu Ser Leu	
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Gly Ser Ala Tyr Gln Ala Met Ile Leu Gly Val Asp Ser Lys Asn Ile	
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Phe Asn Phe Lys Val Ser Gln Glu Gly Leu Lys Leu Ser Asn Asp Met	
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Met Gly Ser Tyr Ala Glu Met Lys Phe Asp His Thr Asn Ser Leu Asn	
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Ile Ala Gly Leu Ser Leu Asp Phe Ser Ser Lys Leu Asp Asn Ile Tyr	
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Ser Ser Asp Lys Phe Tyr Lys Gln Thr Val Asn Leu Gln Leu Gln Pro	
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Tyr Ser Leu Val Thr Thr Leu Asn Ser Asp Leu Lys Tyr Asn Ala Leu	
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Asp Leu Thr Asn Asn Gly Lys Leu Arg Leu Glu Pro Leu Lys Leu His	
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gtg gct ggt aac cta aaa gga gcc tac caa aat aat gaa ata aaa cac	5642
Val Ala Gly Asn Leu Lys Gly Ala Tyr Gln Asn Asn Glu Ile Lys His	
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atc tat gcc atc tct tct gct gcc tta tca gca agc tat aaa gca gac	5690
Ile Tyr Ala Ile Ser Ser Ala Ala Leu Ser Ala Ser Tyr Lys Ala Asp	
1840 1845 1850	

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Thr	Val	Ala	Lys	Val	Gln	Gly	Val	Glu	Phe	Ser	His	Arg	Leu	Asn	Thr	
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Asp	Ile	Ala	Gly	Leu	Ala	Ser	Ala	Ile	Asp	Met	Ser	Thr	Asn	Tyr	Asn	
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Ser	Asp	Ser	Leu	His	Phe	Ser	Asn	Val	Phe	Arg	Ser	Val	Met	Ala	Pro	
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Phe	Thr	Met	Thr	Ile	Asp	Ala	His	Thr	Asn	Gly	Asn	Gly	Lys	Leu	Ala	
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Leu	Trp	Gly	Glu	His	Thr	Gly	Gln	Leu	Tyr	Ser	Lys	Phe	Leu	Leu	Lys	
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Ala	Glu	Pro	Leu	Ala	Phe	Thr	Phe	Ser	His	Asp	Tyr	Lys	Gly	Ser	Thr	
1935			1940			1945			1950							
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Ser	His	His	Leu	Val	Ser	Arg	Lys	Ser	Ile	Ser	Ala	Ala	Leu	Glu	His	
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Lys	Val	Ser	Ala	Leu	Leu	Thr	Pro	Ala	Glu	Gln	Thr	Gly	Thr	Trp	Lys	
1970			1975			1980										
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Leu	Lys	Thr	Gln	Phe	Asn	Asn	Asn	Glu	Tyr	Ser	Gln	Asp	Leu	Asp	Ala	
1985			1990			1995										
tac	aac	act	aaa	gat	aaa	att	ggc	gtg	gag	ctt	act	gga	cga	act	ctg	6170
Tyr	Asn	Thr	Lys	Asp	Lys	Ile	Gly	Val	Glu	Leu	Thr	Gly	Arg	Thr	Leu	
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gct	gac	cta	act	cta	cta	gac	tcc	cca	att	aaa	gtg	cca	ctt	tta	ctc	6218
Ala	Asp	Leu	Thr	Leu	Leu	Asp	Ser	Pro	Ile	Lys	Val	Pro	Leu	Leu	Leu	
2015			2020			2025			2030							
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Ser	Glu	Pro	Ile	Asn	Ile	Ile	Asp	Ala	Leu	Glu	Met	Arg	Asp	Ala	Val	
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Asn	Gln	Asp	Val	His	Ser	Ile	Asn	Leu	Pro	Phe	Phe	Glu	Thr	Leu	Gln	
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cac ttt gtt ata aat ctt att ggg gat ttt gaa gta gct gag aaa atc His Phe Val Ile Asn Leu Ile Gly Asp Phe Glu Val Ala Glu Lys Ile 2320 2325 2330			7130
aat gcc ttc aga gcc aaa gtc cat gag tta atc gag agg tat gaa gta Asn Ala Phe Arg Ala Lys Val His Glu Leu Ile Glu Arg Tyr Glu Val 2335 2340 2345 2350			7178
gac caa caa atc cag gtt tta atg gat aaa tta gta gag ttg acc cac Asp Gln Gln Ile Gln Val Leu Met Asp Lys Leu Val Glu Leu Thr His 2355 2360 2365			7226
caa tac aag ttg aag gag act att cag aag cta agc aat gtc cta caa Gln Tyr Lys Leu Lys Glu Thr Ile Gln Lys Leu Ser Asn Val Leu Gln 2370 2375 2380			7274
caa gtt aag ata aaa gat tac ttt gag aaa ttg gtt gga ttt att gat Gln Val Lys Ile Lys Asp Tyr Phe Glu Lys Leu Val Gly Phe Ile Asp 2385 2390 2395			7322
gat gct gtg aag aag ctt aat gaa tta tct ttt aaa aca ttc att gaa Asp Ala Val Lys Lys Leu Asn Glu Leu Ser Phe Lys Thr Phe Ile Glu 2400 2405 2410			7370
gat gtt aac aaa ttc ctt gac atg ttg ata aag aaa tta aag tca ttt Asp Val Asn Lys Phe Leu Asp Met Leu Ile Lys Lys Leu Lys Ser Phe 2415 2420 2425 2430			7418
gat tac cac cag ttt gta gat gaa acc aat gac aaa atc cgt gag gtg Asp Tyr His Gln Phe Val Asp Glu Thr Asn Asp Lys Ile Arg Glu Val 2435 2440 2445			7466
act cag aga ctc aat ggt gaa att cag gct ctg gaa cta cca caa aaa Thr Gln Arg Leu Asn Gly Glu Ile Gln Ala Leu Glu Leu Pro Gln Lys 2450 2455 2460			7514
gct gaa gca tta aaa ctg ttt tta gag gaa acc aag gcc aca gtt gca Ala Glu Ala Leu Lys Leu Phe Leu Glu Glu Thr Lys Ala Thr Val Ala 2465 2470 2475			7562
gtg tat ctg gaa agc cta cag gac acc aaa ata acc tta atc atc aat Val Tyr Leu Glu Ser Leu Gln Asp Thr Lys Ile Thr Leu Ile Ile Asn 2480 2485 2490			7610
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aaa ttc cga gag act cta gaa gat aca cga gac cga atg tat caa atg Lys Phe Arg Glu Thr Leu Glu Asp Thr Arg Asp Arg Met Tyr Gln Met 2515 2520 2525			7706
gac att cag cag gaa ctt caa cga tac ctg tct ctg gta ggc cag gtt Asp Ile Gln Gln Glu Leu Gln Arg Tyr Leu Ser Leu Val Gly Gln Val 2530 2535 2540			7754

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Tyr Ser Thr Leu Val Thr Tyr Ile Ser Asp Trp Trp Thr Leu Ala Ala	
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Lys Asn Leu Thr Asp Phe Ala Glu Gln Tyr Ser Ile Gln Asp Trp Ala	
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Lys Arg Met Lys Ala Leu Val Glu Gln Gly Phe Thr Val Pro Glu Ile	
2575 2580 2585 2590	
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Lys Thr Ile Leu Gly Thr Met Pro Ala Phe Glu Val Ser Leu Gln Ala	
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Leu Gln Lys Ala Thr Phe Gln Thr Pro Asp Phe Ile Val Pro Leu Thr	
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Asp Leu Arg Ile Pro Ser Val Gln Ile Asn Phe Lys Asp Leu Lys Asn	
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Ile Lys Ile Pro Ser Arg Phe Ser Thr Pro Glu Phe Thr Ile Leu Asn	
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Thr Phe His Ile Pro Ser Phe Thr Ile Asp Phe Val Glu Met Lys Val	
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Lys Ile Ile Arg Thr Ile Asp Gln Met Gln Asn Ser Glu Leu Gln Trp	
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Pro Val Pro Asp Ile Tyr Leu Arg Asp Leu Lys Val Glu Asp Ile Pro	
2690 2695 2700	
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Leu Ala Arg Ile Thr Leu Pro Asp Phe Arg Leu Pro Glu Ile Ala Ile	
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Pro Glu Phe Ile Ile Pro Thr Leu Asn Leu Asn Asp Phe Gln Val Pro	
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Asp Leu His Ile Pro Glu Phe Gln Leu Pro His Ile Ser His Thr Ile	
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Asn Leu Lys Val Arg Phe Pro Leu Arg Leu Thr Gly Lys Ile Asp Phe	
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Ser Leu Trp Glu Lys Thr Gly Leu Lys Glu Phe Leu Lys Thr Thr Lys	
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Gln Ser Phe Asp Leu Ser Val Lys Ala Gln Tyr Lys Lys Asn Lys His	
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Gln	Val	Glu	Leu	Ser	Asn	Asp	Gln	Glu	Lys	Ala	His	Leu	Asp	Ile	Ala	



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